



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/777,150

02/13/2004

Woo-jong Park

Q79322

4042

23373 7590 03/17/2008
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

CHU, WUTCHUNG

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/777,150	Applicant(s) PARK, WOO-JONG	
	Examiner WUTCHUNG CHU	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/4/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 6, the term “dividing the IP trailer read from the packet memory management unit into second data in second units” is vague and indefinite because it is not known the metes and bounds of the claimed invention. It is not clear of what “second data in second units” is, and if this "second units", are smaller units, which are subdivided from a single IP packet trailer, and that the single IP packet trailer corresponds to a single IP packet header.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Epps et al. (US6977930).

Regarding claim 1, Epps et al. disclose pipelined packet switching and queuing architecture (**see column 3 line 10-19**) comprising:

- an input unit for inputting first data in first units of transmission (**see figure 2 box 210**);
- a packet memory management unit for assembling the first data into an Internet Protocol (IP) packet and loading the IP packet into a packet memory, and reading out a pointer of an IP packet header and a pointer of an IP packet trailer connected to the IP packet header (**see column 5 line 39 -47**);
- a header processing unit for deciding a packet classification (**see column 6 line 24-28 and figure 5 box 520 classifier**); and a transmission destination by using the IP packet header, and re-transmitting to the packet memory management unit the pointer of the IP packet trailer connected to the IP packet header (**see column 15 line 12-27**); and
- an output unit for dividing the IP packet trailer read from the packet memory management unit into second data in second units of transmission based on the pointer of the IP packet header (**see column 9 line 40-45 and column 15 line 67- column 16 line 2 where first tail will always correspond to the first header and figure 3 inherently shows that tails are divided into same size**

as headers) transmitted from the header processing unit and the pointer of the IP packet trailer connected to the IP packet header, and outputting the second data to a channel **(see column 27 line 45-53 and 40 line 4-12);**.

Regarding claim 2, Epps et al. teach the packet memory management unit includes:

- a packet generator for generating the IP packet from the first data **(see column 6 line 17-22 and figure 4 box 410);**
- the packet memory **(see figure 12 box 1210 queue manager and column 7 line 11-21)** comprising plural buffers **(see column 7 line 12 buffers)** loading the IP packet, and the plural buffers storing buffer attribute information and the pointer of the IP packet trailer connected to the IP packet header **(see column 7 line 17-22 pointers to each buffer);**
- a transmission header queue for loading the pointer of the IP packet header corresponding to a transmission order of the IP packet **(see column 9 line 40-45);** and
- a controller for reading from the packet memory the pointers of the IP packet header and the IP packet trailer connected to the IP packet header, according to the transmission order determined by the transmission header queue **(see column 9 line 40-45)**, and transmitting the pointers of the IP packet trailer

and the IP packet trailer to the header processing unit (**see column 9 line 38-51**).

Regarding claim 3, Epps et al. teach the controller, if the pointer of the IP packet trailer connected to the IP packet header is re-transmitted from the header processing unit, reads the IP packet trailer connected to the IP packet header from a buffer corresponding to the pointer of the IP packet trailer, and transmits the IP packet trailer to the output unit (**see column 15 line 12-27**).

Regarding claim 4, Epps et al. teach the controller verifies whether a different IP packet trailer connected to the IP packet trailer exists by using the buffer attribute information corresponding to the pointer of the IP packet trailer, and, if the different IP packet trailer exists, reading and transmitting the different IP packet trailer to the output unit (**see column 15 line 63 – column 16 line 12 and column 40 line 55 – column 41 line 4**).

Regarding claim 5, Epps et al. teach the buffer attribute information includes a front pointer of a front buffer connected to a front of the buffer (**see column 16 line 44-67**) and a rear pointer of a rear buffer connected to a rear of the buffer, and information on whether a different IP packet trailer connected after the IP packet trailer, exists (**see column 15 line 63 – column 16 line 12 and column 40 line 55 – column 41 line 4**).

Regarding claim 11, Epps et al. teach the first units of transmission are the same as the second units of transmission (**see column 40 line 39-46**).

Regarding claims 6-10 and 12, Epps et al. disclose all the limitations as discussed in the rejection of system claims 1-5 and 11 and are therefore apparatus method claims 6-10 and 12 are rejected using the same rationales.

Response to Arguments

6. Applicant's arguments filed 12/4/2007 have been fully considered but they are not persuasive. Because the term in claim 1 is rejected as indefinite (see 112 2nd rejection), the rejection with prior art Epps et al. (US6977930) respectfully remains.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Belz et al. (US2006/0039374)

Calvignae et al. (US7085850)

Sugai et al. (US2006/0233156)

Maher, III et al. (US6381242)

Kim et al. (US2004/0165613)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WUTCHUNG CHU whose telephone number is (571)270-1411. The examiner can normally be reached on Monday - Friday 1000 - 1500EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan D. Orgad can be reached on 571 272 7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2619

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WC/
Wutchung Chu

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2619